



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

QM12/0210

MEDTRONIC INC
7000 CENTRAL AVE NE
MINNEAPOLIS MN 55432

| APPLICATION NO. | FILING DATE | TOTAL CLAIMS | EXAMINER AND GROUP ART UNIT | DATE MAILED |
|-----------------------|--|--------------|-----------------------------|---------------|
| 08/937,443 | 09/25/97 | 028 | EVANISKO, G | 3737 02/10/00 |
| First Named Applicant | RENIRIE, 35 USC 154(b) term ext. = 0 Days. | | | |

TITLE OF INVENTION SYSTEM AND METHOD FOR RESPIRATION - MODULATED PACING

| ATTY'S DOCKET NO. | CLASS-SUBCLASS | BATCH NO. | APPLN. TYPE | SMALL ENTITY | FEE DUE | DATE DUE |
|-------------------|----------------|-------------|-------------|--------------|-----------|----------|
| 0 P-4782 | | 607-020.000 | H96 UTILITY | NO | \$1210.00 | 05/10/00 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.
If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number.
Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PATENT AND TRADEMARK OFFICE COPY

Notice of Allowability

Application No.
08/937,443

Applicant(s)
Renirie et al

Examiner
George Evanisko

Group Art Unit
3737



All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

☒ This communication is responsive to the amendment of 1/28/00

☒ The allowed claim(s) is/are 1-14, 18-26, 28, 30, 31, 34, and 35

☐ The drawings filed on _____ are acceptable.

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE **THREE MONTHS** FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

☒ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

☒ Applicant MUST submit NEW FORMAL DRAWINGS

☒ because the originally filed drawings were declared by applicant to be informal.

☐ including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. _____

☐ including changes required by the proposed drawing correction filed on _____, which has been approved by the examiner.

☐ including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☒ Notice of Informal Patent Application, PTO-152

☒ Interview Summary, PTO-413

☒ Examiner's Amendment/Comment

☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

☐ Examiner's Statement of Reasons for Allowance

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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312.

To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Thomas Woods on 2/8/00.

2. The application has been amended as follows:

In the specification, page 20, line 3, after "n. vagus)", the following has been inserted

C' --or the sympathetic nerve system--.

In line 4, after "expiration", --and/or inspiration" has been inserted.

In claim 1, line 3, after "to" the following has been inserted

C 2 --one of a vagus nerve and sympathetic nerve system to--.

In claim 4, ~~line~~ 2, "an" has been deleted and --the-- has been inserted.

In claim 9, line 3, "or" has been deleted and --of-- has been inserted. In line 3, "a" has been deleted and --said-- has been inserted.

In claims 10 and 11, line 3, "or" has been deleted and --of-- has been inserted.

In claim 12, line 4, "during patient respiration" has been deleted and

C 3 --in response to a said indicated inspiration onset-- has been inserted.

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Claims 15-17, 27, 29, 32, 33, and 36 and have been canceled.

In claim 18, line 3, "said heart" has been deleted and the following has been inserted

C4 --one of a vagus nerve and sympathetic nerve system of said patient--.

In claim 21, before "comprising", --further-- has been inserted.

In claim 26, line 4, "at least one position" has been deleted and

C5 --one of a vagus nerve and sympathetic nerve system-- has been inserted.

In line 5, "and" has been deleted.

In claim 28, line 1, "27" ~~has been deleted~~ and --26-- has been inserted.

In claim 30, line 1, "29" ~~has been deleted~~ and --26-- has been inserted. In line 4, "pacing pulses" has been deleted and --stimulus signals" has been inserted.

In claim 31, line 9, delete "and" and the following has been inserted

C6 --to one of the vagus nerve and sympathetic nerve system--.

3. The following is an examiner's statement of reasons for allowance: The subject matter of the independent claims could either not be found or was not suggested in the prior art. The subject matter not found was the use of vagus nerve or sympathetic nerve system pacing to control the heart rate as a function of respiration and/or metabolic demand parameters.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Evanisko whose telephone number is (703) 308-2612.

GRE

February 8, 2000


George R. Evanisko
Patent Examiner





**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address : COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

Notification of Informality

| | | |
|-----------------------------|----------------------|--------------------------------------|
| SERIAL NO. 09/937443 | APPLICANT(S) | ATTACHMENT TO PAPER NO. 14 |
|-----------------------------|----------------------|--------------------------------------|

This application is informal for the reason(s) checked below.

The period within which to correct these informalities and avoid abandonment is set on the attached paper.

1. ☒ The oath (or declaration) is defective for the reason(s) checked below. A DECLARATION (or oath) identifying this application by the above Serial Number and title in compliance with Title 37 Code of Federal Regulations Sec. 1.68 is required.

A. ☐ 37 CFR 1.65 has not been complied with in that:

1. ☐ The terms "original" and/or "first" are omitted.
2. ☐ The clause re "public use," "on sale" or "printed publication" is omitted.
3. ☐ Applicant's citizenship is omitted.
4. ☐ Reference to "sole" or "joint" inventorship has been omitted or has been used improperly.
5. ☐ An improper oath or declaration form has been used.
6. ☐ The date of execution is omitted, incomplete or more than three months prior to filing.
7. ☐ The Notary's signature has been omitted, or is in the wrong place.
8. ☐ The Notary's seal and venue differ or are omitted or the jurat has been omitted (MPEP section 604.02).
9. ☐ The consular certificate has been omitted or is signed by an officer whose identity or authority to sign has been omitted. (see 37 CFR 1.66 (a))
10. ☐ The papers are not properly ribboned. The DECLARATION (or oath) required above should refer to the papers as filed.
11. ☐ The declaration clause regarding "... acknowledge a duty to disclose ..." as required by 37 CFR 1.65(a)(1) has been omitted.
12. ☐ The reference to a possible earlier filing of an application for an inventors certificate as required by 37 CFR 1.65(a)(1) is omitted.

B. ☐ Permanent ink or its equivalent in quality as required under 37 CFR 1.52(a) has not been used for the

1. ☐ Signature 2. ☐ Oath or declaration 3. ☐ Specification

C. ☐ Non-initialed alterations have been made to the oath or declaration (see 37 CFR 1.52(c) and 1.56).

D. ☐ The declaration clause regarding, "willful false statements ..." as required by 37 CFR 1.68 has been omitted.

E. ☒ Other *The signature of the first inventor is missing*

2. ☐ The papers are defective. Applicant is required to provide:

A. ☐ A statement over applicant's signature giving his/her complete name "including at least one given name without abbreviation" as required by 37 CFR 1.57.

B. ☐ Proof of authority of the legal representative under 37 CFR 1.44.

C. ☐ An abstract in compliance with 37 CFR 1.72(b).

D. ☐ A properly executed affidavit signed by all of the inventors stating the date on which the unsigned and/or undated alterations to page(s) _____ were made. If such changes were made after the date of the oath or declaration, an amendment cancelling these alterations is required.

E. ☐ A statement over applicant's signature giving his/her complete Post Office Address.

F. ☐ A statement over applicant's signature giving his/her complete Post Office Address and city and state (or foreign country) of residence.

G. ☐ A statement giving applicant's correct city and state (or foreign country) of residence. If it is the same as that of his/her Post Office Address, NO FURTHER RESPONSE IS NECESSARY.

H. ☐ Other

ENCLOSED:

- ☐ "General Information Concerning Patents"
☐ Copy of a patent to assist applicant in making corrections.
☐ Copy of a DECLARATION for completion by applicant.